master of arts in teaching 1974-1975

THE CITADEL

Charleston, South Carolina

COLLEGE CALENDAR

Fall Semester 1974

August	19-23	Registration
August	26	Classes begin
September	2	Labor Day holiday
September	5	Last day to add or change a course
November	26-30	Thanksgiving holiday
December	3	Last day to drop a course
December	9-12	Semester examinations
December	20	Final date for receiving applications for admission for spring semester

Spring Semester 1975

January	13-17	Registration
January	20	Classes begin
January	30	Last day to add or change a course
March	24-30	Spring holiday
April	28	Last day to drop a course
May	2	Final date for receiving applications for admission for first summer session
May	5-8	Semester examinations
May	17	Commencement

Summer School 1975

June	2	First session begins
June	7	Last day for receiving applications for admission for second summer session
June	28	Classes held (makeup for July 4)
July	3	First summer session ends
July	4	Independence Day holiday
July	7	Second session begins
July	19	Final date for receiving applications for admission for fall semester
August	8	Second session ends — Commencement

MASTER OF ARTS IN TEACHING PROGRAM

The Citadel and its Master of Arts in Teaching (MAT) program are fully accredited by the Southern Association of Colleges and Schools. The Citadel is a member of the National Commission on Accrediting and holds membership in the Association of American Universities.

The Master of Arts in Teaching program at The Citadel is specifically designed to assist school teachers and administrators in extending their knowledge, improving their skills, and enhancing their professional status. Those who are seeking certification, having acquired the prescribed undergraduate basic training, may earn the standard South Carolina teaching credentials by majoring in education and minoring in a subject-matter field. Those who are already certified as well as those not seeking certification may elect to major in a subject-matter field and minor in education. Those who seek certification in special education or in administration and supervision may elect to enroll in a planned program of studies in either of these areas. Employed teachers enrolled in the program who have not had directed teaching may, with the approval of their school officials, earn 6 credits by enrolling in the teaching internship program. This program includes periodic observation by a college supervisor, followup conferences, and a 3-hour weekly seminar at the college. However, the MAT program does not include courses in art appreciation, music appreciation, and health. Under the guidance of the Director and the Graduate Council, a program of studies is designed to meet the needs of each individual who wishes to be admitted to candidacy for the master's degree.

Objectives of the program are:

1. To give the teacher a greater depth of understanding in his subject area.
2. To permit a student to pursue his interest in a subject area.
3. To help the in-service teacher obtain graduate credits for certification.
4. To enable a teacher or administrator to combine scholarly knowledge in his teaching field with an understanding of the student, theories of learning, techniques of teaching, methods of research, and purposes of education.
5. To aid schools by providing a program which will increase the number of qualified teachers and administrators.

GENERAL INFORMATION

Admission to Courses

Admission to courses will be through approval of an application along with transcripts of all graduate and undergraduate credits earned and proof of graduation from an approved 4-year college; proof of a satisfactory score on the National Teacher Examinations or the Graduate Record Examination or the Miller Analogies Test; letters of recommendation from two former college professors or immediate superiors in recent employment; and a personal interview with a designated college official.

Admission procedure is as follows:

1. Complete and return the application form.
2. Submit official transcripts of all graduate and undergraduate credits together with proof of graduation from an accredited 4-year college.
3. Submit your score on one of the following tests:
   a. National Teacher Examinations.
   b. Graduate Record Examination (aptitude test only).
   c. Miller Analogies Test.

   If you have not taken any of these tests, advanced arrangements may be made for you to take the Miller Analogies Test at The Citadel.
4. Have a letter of recommendation mailed directly to the Director of MAT Program from each of two former professors or immediate superiors in recent employment.
5. Be interviewed by a designated Citadel official.
6. Within a reasonable time after you complete the items above, you will be notified concerning acceptance to the program.
7. For admission to courses in a specific term, items 1 through 5 should be completed not later than 1 month prior to the first meeting of a course.

Admission to Candidacy

Prior to making application for admission to candidacy, students must file a score on the Graduate Record Examination, aptitude test only. Candidates who hold either a doctoral or a master's degree from an accredited institution are not required to present a score from the Graduate Record Examination for admission to candidacy, providing all other requirements are met.

Admission to candidacy for the degree will be through completion of all requirements for admission to courses; completion of not less than 12 hours in approved courses at The Citadel, creditable toward the MAT degree; evaluations from two of the student's graduate professors, permanent faculty at The Citadel; and approval of his program of studies.

Admission to candidacy may be granted by the Graduate Council upon the recommendation of the department head of the student's major field of study.

Criteria considered by the Graduate Council for approval of an application for admission to candidacy include the academic grade average for all graduate work, the undergraduate record, the evaluations from two of the student's graduate professors at The Citadel, professional success, and a competency examination, if recommended.

A minimum of 12 semester hours in an approved program must be completed by a student at The Citadel after being admitted to candidacy for the MAT degree. The final 12 semester hours must be completed at The Citadel.

Grades

Only letter grades are given to evaluate a student's progress. No numerical symbol or percentage is fixed or assigned the equivalent of any grade.

A—A grade of "A" represents work of a very high quality. Four grade points.

B—A grade of "B" indicates average graduate accomplishment. Three grade points.

C—A grade of "C" is below average but passing. Two grade points.

F—A grade of "F" indicates that the minimum requirements have not been met. No grade points.

I—A grade of "I" represents work of satisfactory quality incomplete for authorized reasons. Incomplete (I) grades must be made up during the following full semester after the recording of the grade. If the grade is not made up in this period of time, it will be changed to a grade of "F." The summer session will not be considered a semester in this case. An extension of time due to extenuating circumstances may be authorized by the department head and the Vice President for Academic Affairs.

Credit Requirements

Credit requirements for all majors except special education include completion of 30 semester hours with a minimum average grade of "B," based on a grade ratio (3.0), in the individual's major and a minimum average of "B" in his minor. Credit requirements for the special education major include completion of 36 semester hours with a minimum average grade of "B," based on a grade ratio (3.0), in the individual's approved program. Graduate credit will be given only for grades of "A," "B," and "C." At least one-half of the courses taken must be courses on the 500 level, whereas the remainder may be selected from approved courses on the 300 and 400 levels. Not more than 6 hours, relevant to the student's program, may be accepted by transfer from other colleges. Transfer credits on the graduate level will be accepted only if the applicant has been admitted into an accredited program at the college or university from which he seeks to transfer those credits. Correspondence course credits are not acceptable. Creditable hours must have been earned within 6 years of the graduation date.

Application for Graduation

Application for graduation and payment of the appropriate fee must be made at the time of registration for the last semester or the first summer session prior to expected graduation. To be recommended for the degree Master of Arts in Teaching, a student must meet all admission requirements, be admitted to candidacy, and complete satisfactorily the scholarship and curriculum requirements for the degree. Finally, he must be free from all indebtedness to The Citadel.

The Major

Major work is offered in the following departments: Biology, Education, English, History, Mathematics, and Physical Education.

Available majors are biology, the natural sciences, English, history, mathematics, secondary education, special education, secondary school administration and supervision, elementary school administration and supervision, and physical education.

A major in biology, the natural sciences, English, history, mathematics, secondary education, secondary school administration and supervision, elementary school administration and supervision, and physical education will consist of 18 to 21 semester hours, the minor, 9 to 12 semester hours. A minor in physical education always requires 12 semester hours.

A student who majors in biology, the natural sciences, English, history, mathematics, or physical education must choose a minor in secondary education. One who majors in secondary education must choose a minor in biology, English, history, mathematics, or physical education. One who majors in secondary school administration and supervision or elementary school administration and supervision must choose a minor in psychology.

A major in special education will consist of a 36 semester hour planned program of studies.

Registration for Courses

Students who have been admitted should complete a registration form and present it, along with a check, to the Office of the Director of MAT Program. He will approve the course(s) and submit the form and check to the Office of the Registrar. A teacher employed on a full-time basis should enroll for only one course during the term he is teaching. The responsibility for being properly registered rests with the student.

Policies

Policies for students enrolled in the Master of Arts in Teaching program during a specific term of the evening school or the summer school are the same as given in the published bulletin for that term.

Costs

Costs include $20 for each credit hour. The registration fee is $10 for each semester of the evening program and $20 for each term of the summer school. The biology laboratory fee is $10. All fees are due and payable at the time of registration.

Withdrawal from Classes

Formal notice of intent to withdraw from any class is necessary in all cases. Prepared withdrawal forms are available in the Office of the Director of MAT Program and must be submitted by the student to effect withdrawal. Students who do not follow this procedure will receive a failing grade for the course(s) which they cease to attend.

Course Cancellation

It becomes necessary occasionally for reasons of enrollment to cancel a course. This cancellation is the reserved right of the college and may be done without notice. Students who are affected by course cancellation will receive due consideration in such cases.

Transcripts

An individual's transcript is a confidential document and is released only when requested in writing by the individual. There is no charge for the initial transcript, but a fee of $3 is charged on all subsequent ones. Remittances for transcripts should accompany the application for the transcript and should be mailed directly to the Records Office, The Citadel. Certified copies are then issued and sent where requested.

DEPARTMENT OF BIOLOGY

The Department of Biology offers graduate courses which lead to an MAT degree in either biology or the natural sciences. The major in biology includes only courses in the field of biology. The major in the natural sciences is an interdepartmental major which includes courses in biology, chemistry, earth science, and physics.

Major in Biology

The MAT degree with a major in biology requires not less than 18 nor more than 21 semester hours credit in biology. A major in biology must elect a minor in secondary education.

A minor in biology requires 9 to 12 semester hours credit in biology. In both the major and minor in biology, the planned program must include 10 courses.

Students with a major or minor in biology have the option of requesting a faculty committee to review their academic background and suggest a program of study. However, to assist those students planning their own program the Biology Department will provide a calendar showing current and future course offerings.

Graduate courses:

47-501—*Biological Science* Three Credit Hours

A comprehensive review of the fundamentals of biology, including chemical and physical principles, evolution and adaptation, and genetics. Lecture, three hours a week.

47-502—*Morphology and Evolution of Animals* Three Credit Hours

A brief review of animal phylogeny followed by a study of the principles and processes of animal evolution. Lecture, three hours a week.

47-503—*Morphology and Evolution of Plants* Three Credit Hours

An advanced course in comparative morphology, life history and phylogeny in the vascular and nonvascular plants. The laboratory will include work on structural and developmental relationships as applied to morphological and evolutionary interpretations of the vascular and nonvascular plants. Lecture, two hours a week; laboratory, two hours a week.

47-504—*General Physiology* Three Credit Hours

A study of the general principles of function that underline the life processes of all organisms. Emphasis will be given to cellular and intercellular functional interactions that are of significance for the understanding of the whole (multicellular) organism. Lecture, three hours a week.

47-506—*Advanced Microbiology* Three Credit Hours

A general coverage of the anatomy, morphology, ecology, and chemistry of micro-organisms. The emphasis in this course will be on bacteria. However, some time will be spent on the study of fungi, viruses, Richettsiae, and protozoans. Lecture, two hours a week; laboratory, three hours a week.

47-509—*Pollution Ecology* Three Credit Hours

A study of the nature of pollution and how it can be controlled. Students will gain an appreciation of important ecological relationships affected by pollution and a knowledge of the technological methods of preserving them. Field trips will be made to local pollution sites and an illustrated study of Charleston pollution will be prepared for publication. Lecture, two hours a week; laboratory, two hours a week.

47-510—*Marine Invertebrates* Three Credit Hours

A study of marine invertebrates and their environment. Lecture, two hours a week; laboratory, three hours a week.

47-518—*Methods and Procedures for Teaching High School Biology* Three Credit Hours

The fundamental principles of biological processes and the techniques of teaching biology in secondary schools are studied. Emphasis will be placed on sources and preparation of materials for laboratory and classroom projects. Lecture, three hours a week.

47-519—*Seminar in Environmental Studies* Three Credit Hours

A series of field trips, lectures, and experiences designed to develop an understanding of the environment as it affects man's well-being now and in the future. This course is especially designed for teachers and counselors, grades K-12, in all disciplines. Classes will normally meet daily from 8:30 a.m. to 5:00 p.m. for a period of three weeks. Outside field work is required.

Undergraduate courses: The following undergraduate courses are

approved for credit toward the MAT degree in biology or the natural sciences:

47-308—*Genetics* Three Credit Hours

This course presents in a relatively nontechnical manner the basic facts essential for an understanding of the mode of inheritance in plants and animals with the major emphasis on animals. It is strongly suggested by many medical colleges. Lecture, two hours a week; laboratory, two hours a week.

Prerequisite: 47-104 (Introduction to Zoology) or approval of department head.

47-314—*The Vascular Flora of South Carolina* Four Credit Hours

An introductory study of the native vascular flora of South Carolina, emphasizing the identification and collection of native plants. The student will have practice in use of taxonomic keys and in preparation of specimens for The Citadel Herbarium. Lecture, two hours a week; laboratory, four hours a week.

Prerequisite: 47-103 (Introduction to Botany) or approval of instructor.

47-315—*Plant Morphology* Four Credit Hours

The study of the external forms, life histories, evolutionary trends, and economic importances of the lower and higher members of the plant kingdom. Lecture, two hours a week; laboratory, four hours a week.

Prerequisite: 47-103 (Introduction to Botany) or equivalent.

47-316—*Mycology* Four Credit Hours

A study of the morphology, classification, and ecology of the fungi commonly found in the coastal area of South Carolina. Lecture, three hours a week; laboratory, three hours a week.

Prerequisite: 47-103 (Introduction to Botany).

47-321—*General Entomology* Three Credit Hours

An introduction to the study of insects and closely related arthropods, including their ecology, physiology, morphology, taxonomy, adaptations, and immature stages. Laboratory studies will emphasize field collection methods and curatorial techniques. Lecture, two hours a week; laboratory, three hours a week.

Prerequisite: 47-104 (Introduction to Zoology).

47-403—*Mammalian Physiology* Four Credit Hours

A systematic study of the general physiology of skin, skeleton, muscle, nervous system, special senses, digestive, circulatory, and

respiratory systems, kidney function, hormonal control, and reproduction. Lecture, three hours a week; laboratory, three hours a week.

Prerequisite: 47-104 (Introduction to Zoology) and 40-208 (Organic Chemistry) or equivalent.

47-404—*Plant Physiology* Four Credit Hours

A comprehensive study of the physiological processes of living plants. This course is designed to include both inorganic and organic metabolism while emphasizing the relationships of these processes to the entire plant. Lecture, three hours a week; laboratory, three hours a week.

Prerequisites: 47-103 (Introduction to Botany) and 47-205 (Cell Biology) or equivalent.

47-405—*General Parasitology* Three Credit Hours

Taxonomy, morphology, adaptation, and ecology of parasites affecting man and domestic animals. Life history, vectors, and controls are emphasized. Lecture, two hours a week; laboratory, two hours a week.

Prerequisite: 47-104 (Introduction to Zoology).

47-406—*Ecology* Four Credit Hours

An introduction to the study of biological interrelationships and the effects of the environment on the structure and function of animal populations. Laboratory will emphasize methods and materials of ecological investigations. Lecture, two hours a week; laboratory, four hours a week.

Prerequisite: 47-104 (Introduction to Zoology) or equivalent.

47-408—*Ornithology* Four Credit Hours

A study of the structure, function, and ecology of birds. Field trips and bird specimens will give students a working knowledge of birds common to South Carolina. Lecture, two hours a week; laboratory, four hours a week.

Prerequisite: 47-104 (Introduction to Zoology) or approval of department head.

47-409—*Marine Biology* Four Credit Hours

An introduction to the fundamentals of oceanography and marine ecology. Laboratory includes field work stressing taxonomy, ecological measures, and sampling procedures. Lecture, two hours a week; laboratory, four hours a week.

Prerequisites: 47-103 (Introduction to Botany) and 47-104 (Introduction to Zoology) or equivalent.

47-410—*Vertebrate Natural History* Four Credit Hours

An introduction to the classification, ecology, evolution, and distribution of the vertebrates. Laboratory with emphasis on identification and field study techniques, especially with respect to the vertebrates of South Carolina. Lecture, three hours a week; laboratory, two hours a week.

Prerequisite: 47-104 (Introduction to Zoology) or equivalent.

47-413—*Comparative Physiology* Four Credit Hours

This course deals with the function and interrelationships of the physiological systems in invertebrate and vertebrate organisms. Major emphasis is placed on the role of these systems in the adaptation of organisms to different environmental conditions. Lecture, three hours a week; laboratory, three hours a week.

Prerequisite: 47-104 (Introduction to Zoology).

47-418—*Plant Anatomy* Four Credit Hours

An examination of cell types and tissue systems found in the vegetative and reproductive organs of vascular plants with reference to their origin, classification, and function. The laboratory will include practice in the methods and procedures of plant microtechnique. Lecture, two hours a week; laboratory, four hours a week.

Prerequisite: 47-103 (Introduction to Botany) or equivalent.

Major in the Natural Sciences

Interdepartmental Major

The MAT degree with a major in the natural sciences requires not less than 18 nor more than 21 semester hours credit, of which at least one course must be taken in each of the following areas: biology, chemistry, earth science, and physics. These courses may be chosen from those listed below or from the listing of approved biology courses found under the biology major. A major in the natural sciences must elect a minor in secondary education consisting of 9 or 12 semester hours credit.

Chemistry graduate courses:

40-507—*Physical and Chemical Science for Teachers* Three Credit Hours

An activity-oriented course with topics chosen to correspond to those covered in texts used in local school systems.

Note: This course may not be used as the chemistry requirement for the natural sciences major.

40-510—*Methods and Procedures for Teaching Chemistry in High School* Three Credit Hours

The fundamental principles of general chemistry and the techniques for teaching chemistry in secondary schools are studied. Emphasis will be placed on the texts and the laboratory procedures which will be used in the high school classroom and laboratory.

40-512—*Organic Chemistry for Teachers* Three Credit Hours

Special topics covering a wide range of modern organic chemistry designed to provide the teacher with a firm background in theoretical and practical aspects of organic chemistry. Lecture, three hours a week.

Prerequisite: 40-510 (Methods and Procedures for Teaching Chemistry in High School) or a good knowledge of elementary general chemistry.

40-516—*Chemistry Laboratory Organization and Management* Three Credit Hours

A course designed to aid the chemistry teacher in the designing of a comprehensive, efficient, well-balanced laboratory program. Emphasis will be placed upon laboratory safety, experiment selection, purchase of supplies and equipment, organization of material, methods of demonstration, and TOPS experiment projection. Lecture, three hours a week.

Prerequisite: 40-510 (Methods and Procedures for Teaching Chemistry in High School) or a good knowledge of elementary general chemistry.

Chemistry undergraduate courses: The following undergraduate courses are approved for credit toward the MAT degree.

40-300—*Quantitative Analysis* Four Credit Hours

The theory and practice of quantitative analysis, with emphasis on volumetric determinations. Instruments will be used for some procedures. Lecture, two hours a week; laboratory, four hours a week.

Prerequisites: 40-102 (General Chemistry) and 40-112 (General Chemistry Laboratory), 30-102 (Fundamental Mathematics) or equivalent, or permission of department head.

40-301—*Survey of Physical Chemistry* Three Credit Hours

An introduction to the principal topics of physical chemistry, with emphasis on those topics related to life processes. Lecture, three hours a week.

Prerequisites: 40-102 (General Chemistry) and 40-112 (General Chemistry Laboratory), 30-102 (Fundamental Mathematics) or equivalent. (40-300 is recommended, but not required.)

40-302—*Instrumental Methods* Four Credit Hours

The theory and practice of methods involving such instruments as colorimeters, electrophotometers, infrared, visible and ultraviolet spectrophotometers, polarographs, pH meters, titrimeters, electrodeposition apparatus, recorders, vapor phase chromatographs, gamma ray scintillation spectrometer, calorimeters, and other modern instruments including those used for detecting and measuring radioactive materials. Lecture, two hours a week; laboratory, four hours a week.

Prerequisites: 40-300 (Quantitative Analysis) and 40-305 (Physical Chemistry).

Corequisite: 40-306 (Physical Chemistry), or permission of department head.

40-312—*Chemical Bonding and Structure* Three Credit Hours

A one-semester course designed to introduce the student qualitatively to the modern thoughts concerning the basic theories and rules governing chemical bonding and molecular structure. A simplified discussion of bonding in the simple organic and inorganic compounds as well as some complex inorganic ions. Lecture, three hours a week.

Prerequisites: 40-102 (General Chemistry), 40-112 (General Chemistry Laboratory), and 30-102 (Fundamental Mathematics), or permission of department head.

Earth science graduate courses:

45-510—*Earth Science for School Teachers* Three Credit Hours

Minerals and rocks; experiments related to scientific methodology and the nature of earth materials; earth structure; land forms, maps, and aerial photographs; use of ESCP investigative materials. Lecture, three hours a week.

45-512—*Environmental Factors in Earth Science* Three Credit Hours

Problems vs. solutions in the impact of man on the physical environment, with emphasis on central and eastern South Carolina. Lecture, three hours a week.

Prerequisite: 45-510 (Earth Science for School Teachers) or a knowledge of elementary earth science is required.

45-513—*Rocks and Rock-forming Minerals* Three Credit Hours

Origins or mineral deposits and examination of mineral specimens;

rock-forming processes and examination of rock specimens. Lecture, three hours a week; laboratory, three hours a week.

Prerequisite: 45-510 (Earth Science for School Teachers) or a knowledge of elementary earth science is required.

45-514—*Physical Marine Science* Three Credit Hours

Marine geology, physical oceanography, and marine chemistry, including: study of the local intertidal marine environment via field trips; sedimentation processes; currents, tides, and waves; chemical balances and mineral deposition in the oceans; etc. Lecture, three hours a week; laboratory, three hours a week.

Prerequisite: 45-510 (Earth Science for School Teachers) or a knowledge of elementary earth science required; knowledge of elementary chemistry would be helpful.

Physics graduate courses:

26-511—*Methods and Procedures for Teaching Physics in High School* Three Credit Hours

The basic principles of physics and the techniques for teaching physics in secondary schools will be covered. The text will be an approved high school text recommended by the South Carolina State Department of Education. Emphasis will be placed on practical understanding of the material and effective use of laboratory techniques compatible with apparatus actually available at the secondary school level.

26-512—*Science and the Modern World* Three Credit Hours

A study of topics dealing with the application of modern physics to contemporary problems. It includes phenomena likely to be encountered in the science section of magazines and newspapers. Coverage will be selected from such topics as energy sources, solid-state electronics, fundamental particles, ultra-low temperature, space science, structure of the nucleus and atoms, lasers, pulsars, and quasars. Topics will be selected according to the interest of the class. Lecture, three hours a week.

Prerequisite: 26-511 (Methods and Procedures for Teaching Physics in High School) or a good knowledge of elementary physics.

26-513—*Astronomy for Science Teachers* Three Credit Hours

A general treatment of astronomy, including a study of the solar system, the location and observation of planets, stars, and galaxies, the life cycle of a star, and the structure and history of the universe. Lecture, three hours a week.

DEPARTMENT OF EDUCATION

The Department of Education offers various majors under the MAT degree program as well as courses for certification and elective purposes. Majors are offered in secondary education, secondary school administration and supervision, elementary school administration and supervision, and special education. Students who major in secondary education must choose a minor in biology, English, history, mathematics, or physical education. Students who major in secondary school administration and supervision or elementary school administration and supervision must take three courses in psychology to meet requirements for the minor. Students who major in special education must follow a 36 semester hour planned program of studies. Majors in special education must select an area of emphasis such as diagnostic/prescriptive teaching, educable mentally retarded, trainable mentally retarded, emotionally handicapped, or learning disabilities. In addition to courses offered in these various majors, graduate courses are available in counseling, reading, and speech.

The Department of Education also has available a sixth year program for administrators. The South Carolina State Department of Education will issue a superintendent's certificate upon successful completion of a sixth year sequence of courses in administration.

Programs in Education

MAT in Secondary Education

Core Requirements—12 semester hours

50-500: (Foundations of American Education)
50-515: (Educational Research and Evaluation)
51-500: (Human Growth and Development)
51-501: (Application of Learning Theories)

Specialized Professional Education Electives—6 or 9 semester hours to be selected from approved courses.

Minor field of emphasis—9 or 12 semester hours

In the minor field of emphasis three or four courses must be selected from one department offering graduate study other than education.

MAT in Secondary School Administration and Supervision

(A degree in administration requires a secondary teaching certificate as a prerequisite.)

Core Requirements—9 semester hours

50-500: (Foundations of American Education) OR
50-526: (School Community Relations)
50-515: (Educational Research and Evaluation)
51-500: (Human Growth and Development)

Specialized Professional Education—15 semester hours

50-522: (Secondary School Administration With Finance)
50-523: (Secondary School Curriculum Development)
50-524: (Techniques of School Supervision)
50-525: (Seminar in Urban Education) OR Methods Course
50-527: (Finance and Business Management) OR
50-597: (Supervision of Student Teachers) OR
50-598: (Advanced Techniques of Supervision and Curriculum Development)

Minor field of emphasis—9 semester hours

The minor will consist of 9 semester hours in approved graduate level courses in psychology including 51-500.

MAT in Elementary School Administration and Supervision

(A degree in administration requires an elementary teaching certificate as a prerequisite.)

Core Requirements—9 semester hours

50-500: (Foundations of American Education) OR
50-526: (School Community Relations)
50-515: (Educational Research and Evaluation)
51-500: (Human Growth and Development)

Specialized Professional Education—15 semester hours

50-524: (Techniques of School Supervision)
50-525: (Seminar in Urban Education)
50-532: (Elementary School Administration With Finance)
50-533: (Elementary School Curriculum Development)
50-534: (Advanced Elementary Methods and Evaluation)

Minor field of emphasis—9 semester hours

The minor will consist of 9 semester hours in approved graduate level courses in psychology including 51-500.

MAT in Special Education

Core Requirements—9 semester hours

50-500: (Foundations of American Education)
51-500: (Human Growth and Development)
51-501: (Application of Learning Theories)

Specialized Professional Education—15 semester hours

50-471: (Nature of Mental Retardation)
50-472: (Methods With Exceptional Children)
50-473: (Curriculum for Exceptional Children) OR
50-578: (The Diagnostic/Prescriptive Process)
50-534: (Advanced Elementary Methods and Evaluation)
51-502: (Psychology of Exceptional Children) OR
50-583: (Psychosocial Considerations in Education)

Electives—12 semester hours

50-303, 50-406, 50-474, 50-515, 50-520, 50-570, 50-571, 50-572, 50-573, 50-574, 50-575, 50-576, 50-577, 50-578, 50-579, 50-580, 50-581, 50-582, 50-583, or other approved courses.

Minor in Secondary Education

Students majoring in biology, English, history, mathematics, or physical education must elect a minor of 9 or 12 semester hours in secondary education. At least two of the four core courses required for the secondary education major must be chosen as required courses for the education minor.

Sixth Year Program for Administrators

Admission to the sixth year program for administrators requires an applicant to possess a master's degree from an accredited institution and a valid South Carolina state certificate in school administration. Thirty semester hours of credit in five separate areas are required. A "B" average on all course work must be maintained.

Area 1—Organization and Administration—6 semester hours

50-527: (Finance and Business Management)
50-598: (Advanced Techniques of Supervision and Curriculum Development)
50-599: (Administration and Supervision of Reading Programs)
50-600: (Professional Negotiations)

50-601: (Principles of School Law)
50-602: (Staff Personnel Administration)
50-603: (School Plant Seminar)

Area 2—Field Experiences—6 semester hours

50-604: (Internship in Administration)

Area 3—Related Subject Matter—6 semester hours

Psychology, English, mathematics, business, sciences, etc.

Area 4—Curriculum and Instruction—6 semester hours

50-516: (Programmed Learning)
50-517: (Statistics in Education and Psychology)
50-523: (Secondary School Curriculum Development)
50-533: (Elementary School Curriculum Development)
50-555: (Resources for Teaching and Learning)

Area 5—Approved Electives—6 semester hours

50-502: (Seminar in Eastern European Education)
50-525: (Seminar in Urban Education)
50-526: (School Community Relations)
50-582: (Intrapersonal Dynamics for Educators)
50-605: (Independent Study)
50-610: (The Community College)

Education Courses

Graduate courses:

50-500—*Foundations of American Education* Three Credit Hours
The historical and philosophical development of organized education in the United States and its comparison with foreign systems, each in its socio-economic, political, and religious context.

50-502—*Seminar in Eastern European Education* Three Credit Hours
A study of the contrasts in life, education, and culture in Eastern Europe is made. An examination of the process of educational and instructural technology and its application in countries such as the Soviet Union, Austria, Czechoslovakia, Hungary, and Poland is made. The contemporary educational problems resulting from changing social conditions are studied. Directed visits to schools, colleges, and community agencies are included.

50-510—*Methods and Procedures for Teaching Chemistry in High School* Three Credit Hours

The fundamental principles of general chemistry and the techniques for teaching chemistry in secondary schools are studied. Emphasis will be placed on the texts and the laboratory procedures which will be used in the high school classroom and laboratory.

50-511—*Methods and Procedures for Teaching Physics in High School* Three Credit Hours

The basic principles of physics and the techniques for teaching physics in secondary schools will be covered. The text will be an approved high school text recommended by the South Carolina State Department of Education. Emphasis will be placed on practical understanding of the material and effective use of laboratory techniques compatible with apparatus actually available at the secondary school level.

50-513—*Teaching of Social Studies in Secondary Schools* Three Credit Hours

Organization, methods, and procedures for teaching social studies, including history, in the secondary schools.

50-515—*Educational Research and Evaluation* Three Credit Hours

A study of the major methods or techniques of research: documentary or historical; experimental; descriptive; and the case study. Consideration will be given to compiling and presenting the results of research; a critical examination of samples of educational research; and types of evaluation instruments, past and present.

50-516—*Programmed Learning* Three Credit Hours

A semester concentration on methods and techniques for preparing a simple linear program. A practicum for teachers who wish to produce their own programs for use in and outside the classroom. Course will include an analysis of program learning characteristics and program design including: performance objectives, frame design, criterion testing, sequencing, feedback, and application to individualized and group instruction.

50-517—*Statistics in Education and Psychology* Three Credit Hours

A course to provide skill in treatment of research data; including descriptive and inferential statistics up to two-way analysis of variance. Some experience with nonparametric techniques is included.

50-518—*Methods and Procedures for Teaching High School Biology* Three Credit Hours

The fundamental principles of biological processes and the techniques of teaching biology in secondary schools are studied. Emphasis will be placed on sources and preparation of materials for laboratory and classroom projects.

50-519—*Seminar in Environmental Studies* Three Credit Hours

A series of field trips, lectures, and experiences designed to develop an understanding of the environment as it affects man's well-being now and in the future. This course is especially designed for teachers and counselors, grades K-12, in all disciplines. Classes will normally meet daily from 8:30 a.m. to 5:00 p.m. for a period of three weeks. Outside field work is required.

50-520—*Teaching Internship* Six Credit Hours

A supervised practicum in a clinical or classroom setting. Each student also attends a 3-hour weekly seminar. Speech and hearing students completing 300 hours required clinical practice may repeat course as necessary to accumulate required hours leading to ASHA certification. Open to qualified applicants who have not had directed teaching for credit.

50-522—*Secondary School Administration With Finance* Three Credit Hours

A study of basic concepts involved in planning, organizing, managing, and evaluating secondary schools. Budgeting and financial accounting are included.

50-523—*Secondary School Curriculum Development* Three Credit Hours

Common principles of formulating objectives, planning individual subject areas, and developing the total school curriculum. Analyzing and solving problems in one's own school are encouraged.

50-524—*Techniques of School Supervision* Three Credit Hours

Criteria of various types of good schools. Need for school supervision at all levels. Relationship of supervisor to administrators; organization of different schools; materials of instruction; evaluating learning and instruction; teacher visitation and conferences.

50-525—*Seminar in Urban Education* Three Credit Hours

Analysis of the changing functions of educational organization in the ghetto and urban centers. Problems relating to the roles of teachers, administrators, and students in the subcultures of the urban educa-

tional system. Modern materials and teaching strategies will be given emphasis as they relate to the deprived pupils.

50-526—*School Community Relations* Three Credit Hours

Philosophy, organization, and programs of school-community relationships. Special emphasis on community analysis and practical applications to meet individual community circumstances.

50-527—*Finance and Business Management* Three Credit Hours

Procedures and problems relating to financing public education; theory of taxation; types of taxes; practices of education finance; federal, state, and local support of education; budget procedures; financial accounting; purchasing; insurance; inventories; and school maintenance.

50-532—*Elementary School Administration With Finance* Three Credit Hours

Analysis of practice in organization, administration, and supervision of the elementary school.

50-533—*Elementary School Curriculum Development* Three Credit Hours

Principles, procedures, organization, and development of the curriculum of the elementary school. Consideration of the problems and methods of curriculum improvement.

50-534—*Advanced Elementary Methods and Evaluation* Three Credit Hours

A study of advanced methods used in classrooms today. Problem solving, critical thinking, grouping, unit planning, teacher-pupil planning, and innovative strategies. Emphasis on measurement and evaluation of pupil progress and development.

50-535—*Advanced Techniques in Teaching Primary Science and Mathematics* Three Credit Hours

A course designed to develop advanced techniques and materials for teaching science and mathematics to primary pupils. Teachers will be given direct experience in working with process approach and student centered curriculum. The content will include elements of science, mathematics, and geometry.

50-536—*Advanced Techniques in Teaching Intermediate Science and Mathematics* Three Credit Hours

A course designed to develop advanced techniques and materials

for teaching science and mathematics to intermediate pupils. Teachers will be given direct experience in working with process approach and student centered curriculum. The content will include elements of science, mathematics, and geometry.

50-537—*Advanced Secondary Techniques in Physical Science* Three Credit Hours

A course designed to develop advanced techniques and approaches in physical science for junior and senior high school teachers.

50-550—*Guidance Information* Three Credit Hours

Analysis will be made of vocational theories of development, vocational testing, occupational information, and the role of the counselor in the process of counseling with individuals confronted with vocational decisions.

50-551—*Counseling Techniques* Three Credit Hours

A major counselor training course to provide both an understanding of the core dimensions necessary for effective counseling and knowledge of contemporary approaches to counseling individuals.

50-552—*Group Procedures in Guidance and Counseling* Three Credit Hours

A study of the philosophy, techniques, and purposes of group formation and interaction in guidance and counseling. Class experience as a group will be limited and will focus on various techniques used to facilitate group process.

50-553—*Practicum in Counseling* Three Credit Hours

The practicum provides advanced graduate students with supervised experiences of counseling clients in the graduate student's work area of interest. Evaluation of tape recordings and writeups of counseling sessions will be the major teaching methodology. Emphasis will be placed on the application of concepts, principles, and skills acquired in previous course work in counseling.

50-555—*Resources for Teaching and Learning* Three Credit Hours

A study of educational technology; its increasing importance in education and its relationship to communications and learning theories. Emphasis will be placed upon a practical survey of media and materials as they facilitate the teaching-learning process.

50-570—*Teaching Reading to the Exceptional Children* Three Credit Hours

A survey of the nature, problems, and learning needs of the underachiever and retarded reader. This course is designed for the remediation and diagnostic prescriptive teaching for children with reading problems.

50-571—*Crippled Children* Three Credit Hours

A survey and analysis of orthopedic, physical limitations, and other muscular, skeletal, and health impairments of school children. Social, psychological, and medical problems of physical disabilities are studied and special education approaches are explored.

50-572—*Emotionally Disturbed Children* Three Credit Hours

The cause, recognition, and diagnosis of emotional disturbances in school children. Particular emphasis is placed on behavorial problems related to the school environment. It is recommended that this course be taken before 50-581 (Clinical Procedures for the Emotionally Disturbed).

50-573—*Speech Problems* Three Credit Hours

The first half of a speech pathology sequence with emphasis on the description, diagnosis, and treatment of articulation disorders, language development, problems, tongue thrust and cleft palate. Basic linguistic, psychological, and statistical concepts vital to clinical speech are included.

50-574—*Speech Pathology* Three Credit Hours

The second half of a speech pathology sequence with emphasis on the description, diagnosis, and treatment of cerebral palsy, voice disorders, aphasia, and stuttering. A basic approach to the psychodynamics of the speech therapy process is included.

50-575—*Acoustically Handicapped and Visually Impaired Children* Three Credit Hours

A study of the nature and needs of the acoustically handicapped and visually impaired children. The anatomy and physiology and diseases of the ear and eye are studied. Educational implications and procedures are considered.

50-576—*Learning Disabilities in Exceptional Children* Three Credit Hours

A careful study of the learning disabilities and needs of the exceptional children and the techniques in working with them. There

will be consideration of the problems these pupils present to the schools and vice versa.

50-578—*The Diagnostic/Prescriptive Process* Three Credit Hours

This is a highly individualized course designed to give each student the opportunity to analyze the skills involved in the complete diagnostic/prescriptive process, evaluate himself in relation to these skills, and become more proficient in those areas which need strengthening. It must be taken concurrently with 50-579 (The Practicum in Diagnostic/Prescriptive Teaching). Admission by permission of instructor.

50-579—*The Practicum in Diagnostic/Prescriptive Teaching* Six Credit Hours

This is a supervised practicum, meeting The Citadel requirements for practice teaching. Each student will teach 5 days a week, all day, for the entire semester. This course must be taken concurrently with 50-578 (The Diagnostic/Prescriptive Process).

50-580—*Seminar in Classroom Management Techniques* Three Credit Hours

The theory, research, and application of behavior modification techniques to classroom academic and behavior problems. Emphasis will be placed upon the utilization of operant conditioning procedures by teachers in remediating learning difficulties, discipline or adjustment problems.

50-581—*Clinical Procedures for the Emotionally Disturbed* Three Credit Hours

Lectures and discussions exploring various psychoeducational techniques of teaching emotionally and socially maladjusted children. Transactional analysis and behavioral modification are emphasized. The interrelationship of school teachers, school counselors, and social agencies will be considered.

50-582—*Intrapersonal Dynamics for Educators* Three Credit Hours

This course is designed to help students see the significance of intrapersonal factors in their professional functioning through group and individual experience and feedback. It strives to make the student more aware of his own behavior, its motivations, and its effects on others.

50-583—*Psychosocial Considerations in Education* Three Credit Hours

An investigation of the psychological and sociological determinants

of exceptionality and the effects of these determinants on the individual. Admission by permission of the instructor.

50-597—*Supervision of Student Teachers* Three Credit Hours

A course in supervision for master teachers, department heads, and college teachers with supervisory responsibilities in teacher education.

Prerequisites: Teaching experience and 18 credits in education including methods of teaching.

50-598—*Advanced Techniques of Supervision and Curriculum Development* Three Credit Hours

Advanced principles, problems, and techniques of supervision and curriculum development with emphasis on ways and means of improving instruction at all grade levels. Trends in curriculum design and content in various subject areas will be researched and analyzed.

50-599—*Administration and Supervision of Reading Programs* Three Credit Hours

A course designed primarily for principals, supervisors, and reading consultants; includes the study of the nature and function of supervision of reading instruction; supervisory techniques; the role of the principal, supervisor, and reading consultant in the improvement of instruction; administration of a supervisory program; other cognate problems and issues.

50-600—*Professional Negotiations* Three Credit Hours

Emphasis is placed upon knowledge and involvement in the various education associations. The student will become acquainted with forces and trends influencing collective negotiations; principles, concepts, and theory relevant to negotiations, negotiation skills, and relevant literature and research.

50-601—*Principles of School Law* Three Credit Hours

Constitutional, statutory, case, and common law bases of school administration; study of legal provisions and principles relating to education. Includes emphasis on research and analysis.

50-602—*Staff Personnel Administration* Three Credit Hours

Study of personnel policies and practices as they relate to recruitment, selection, orientation, deployment, promotion, evaluation, in-service development, morale, dismissal, retirement, and teacher-administrator relationships.

50-603—*School Plant Seminar* Three Credit Hours

Study of problems and policies of the school plant, such as population studies, educational planning, school building standards, materials and uses, rating, and public relations. Discussions of innovative plans and construction as well as visits to new schools will be made.

50-604—*Internship in Administration* Six Credit Hours

Supervised experiences in selected schools, elementary, secondary, or central office, on whole or part-time basis. This course is designed to provide under supervision for overall contact with major functions and problems of administration and to provide intensive study of critical administrative problems. Admission with consent of professor.

50-605—*Independent Study* Three Credit Hours

This course will offer students an opportunity to acquire deeper knowledge of administrative thought and practice. Each student must develop a plan of independent study at the outset and file the completed study at the end of the semester.

50-610—*The Community College* Three Credit Hours

This course is designed to assist students in becoming acquainted with the principles and practices at the community college level and to aid in their preparation for professional work in that field.

Undergraduate courses: The following undergraduate courses may be approved for credit toward the MAT degree by the department head:

50-303—*Guidance* Three Credit Hours

Philosophy, principles, and techniques to provide teachers with competencies needed for participation in guidance programs; theories and practices of guidance; mental, vocational, and aptitude testing.

50-310—*Teaching Reading in Elementary School* Three Credit Hours

A course designed to teach modern reading concepts and teaching strategies to elementary teachers. Basic methods, trends, recent materials, and crucial issues in reading programs are emphasized.

50-311—*Teaching Modern Mathematics in Elementary School* Three Credit Hours

A course designed for elementary school teaching methods in modern mathematics. Teaching the number system and arithmetical operations meaningfully is emphasized.

50-401—*Methods and Materials of Secondary School Teaching* Three Credit Hours

Study of the aims, methods, and materials employed in secondary school teaching; organization of subject matter; motivation and direction of learning; development of attitudes, appreciations, and ideals; classroom presentation of formal materials; conducting informal activities; provision for individual differences; measuring educational outcomes; reports; discussion.

50-405—*Methods and Materials in the Elementary School* Three Credit Hours

Study of the elementary program with emphasis upon materials, curriculum, and skills needed for teaching mathematics, social studies, science, health, music, and physical education, and language arts other than reading. Opportunity to develop varied types of teaching plans.

50-406—*Educational Tests and Measurements* Three Credit Hours

Theories, principles, and practices of mental and educational measurements. The construction and use of the various types of objective instruments of evaluation. Elements of statistics needed in the interpretation and use of examination results.

50-408—*Teaching Reading in the Secondary School* Three Credit Hours

Designed to acquaint middle school and high school teachers with reading practices geared to their students. The course will include a broad survey of the field of reading with attention given to some diagnostic procedures as well as the development of general reading programs for the middle school and senior high school levels. Different subject areas will be considered.

50-409—*Reading Diagnosis and Remediation* Three Credit Hours

A presentation of select diagnostic instruments and procedures for their utilization; methods for their use in planning a remedial program; instruction of children with reading difficulties; results of teaching will be analyzed.

50-410—*Methods and Materials in Reading* Three Credit Hours

Analysis and evaluation of materials for reading instruction. Programed, basal, linguistic, and other types of materials will be considered. Techniques of instruction will be studied and demonstrated.

50-411—*Reading Practicum* Three Credit Hours

A course in which the students engage in supervised teaching.

Students will learn diagnostic teaching procedures in an effort to consistently teach pupils at their level and mode of instruction.

50-412—*Linguistics: The Bases of Speech* Three Credit Hours

History and description of the origins of language and speech and the science of linguistics for special education students.

50-413—*Phonetics* Three Credit Hours

Phonetics in speech pathology practice and the international phonetic alphabet. A method of accurate recording and study of phonemic units of speech for therapeutic purposes. Includes an orientation to linguistics.

50-414—*Stuttering* Three Credit Hours

Psychological and social considerations of stuttering as a functional and/or organic phenomenon according to various theorists. Normal nonfluency, primary and secondary stuttering is discussed along with therapy methods, histories, and observations.

50-416—*Management Techniques in Education* Three Credit Hours

A course to better prepare educators for the added responsibilities demanded of them by the movement to measurable improvement in their management of learning. Educators will know and accept the new demands and will develop management abilities that will enable them to deal effectively with these added responsibilities. Offered via television.

50-471—*The Nature of Mental Retardation* Three Credit Hours

A comprehensive study of the nature and causes of mental retardation. Specific areas include the concept of learning; causes and prevention of mental deficiency and educational characteristics of the mentally retarded. Emphasis will be on developing an understanding of the potential of the retarded in the learning environment. Research in the field will be reviewed.

50-472—*Methods With Exceptional Children* Three Credit Hours

In-depth study of educational provisions as they relate to unique learning characteristics, disorders, and other considerations. Emphasis on the diagnostic approach as it relates to the instructional needs of children who are physically, mentally, or emotionally atypical. Readings are directed toward the history, principles, practices, and problems in the field of the student's area of specialization.

50-473—*Curriculum for Exceptional Children* Three Credit Hours

The basic principles underlying curriculum planning for exceptional children. Readings are directed toward the curriculum history, principles, practices, and problems in the field of the student's area of specialization.

50-474—*Diagnostic/Prescriptive Teaching* Three Credit Hours

This course is designed to acquaint the student with the rationale, purpose, model, and theory of diagnostic/prescriptive teaching. Administrative considerations and problems relevant to implementation will be included. Admission by permission of instructor.

50-475—*Educational Procedures for Learning Disabilities* Three Credit Hours

An investigation of diagnostic and remedial procedures for teaching children with learning disabilities. Emphasis is on the preparation of suitable materials and the selection of methods for developing motor, perceptual, conceptual, and language skills.

50-476—*Practicum in Learning Disabilities* Three Credit Hours

A supervised practicum designed to give the student classroom experiences with exceptional children having learning disabilities and other handicaps.

Psychology Courses

Graduate courses:

51-500—*Human Growth and Development* Three Credit Hours

An analysis of the principles of human development emphasizing the contributions of the biological and social sciences to an understanding of the mental, emotional, social, and physical development in children and adolescents.

51-501—*Application of Learning Theories* Three Credit Hours

A consideration of the nature of the learning processes, emphasizing (1) the contributions of major contemporary learning theories; (2) the processes of acquisition, retention, and transfer of learning; and (3) the application of learning principles in the educative process.

51-502—*Psychology of Exceptional Children* Three Credit Hours

A course in the psychological aspects of mental retardation, learning, motivation and personality development. The psychological foundations of mental deficiencies are included.

51-503—*Psychological Testing* Three Credit Hours

An introduction to the various types of psychological tests with emphasis on the administration, scoring, and interpretation of individual intelligence tests. The student will have practical experience in the use of these instruments.

Prerequisite: Two courses in psychology.

51-600—*Psychology of Social and Personal Behavior* Three Credit Hours

A study of individual behavior in relation to a variety of social stimuli; emphasis on such concepts as social interaction and influence, socialization, group processes, leadership, mass media, and prejudice.

Prerequisite: Two courses in psychology.

Undergraduate courses: The following undergraduate courses are approved for credit toward the MAT degree:

51-304—*Abnormal Psychology* Three Credit Hours

Findings based upon experimental investigation of such fields as attention, perception, and association; theories of personality; discussion of the common neuroses and psychoses.

Prerequisite: 51-201 (General Psychology)

51-306—*Theories of Personality* Three Credit Hours

A study of major contemporary theories of personality with special emphasis on the biological and psychological foundations and integrative aspects of personality.

DEPARTMENT OF ENGLISH

The MAT degree with a major in English requires not less than 18 or more than 21 semester hours credit, with at least 12 of them on the graduate level. A major in English must elect a minor in secondary education.

A minor in English requires 9 to 12 hours in English with not less than 6 of these on the graduate level.

Graduate courses:

80-501—*Major American Writers* Three Credit Hours

Study of major American writers such as Edwards, Franklin, Poe, Emerson, Thoreau, Hawthorne, Melville, and Whitman, with particular attention to works most likely to be taught in high schools.

80-502—*Major American Writers* Three Credit Hours

Study of major American writers such as Emily Dickinson, Mark Twain, Henry James, Crane, O'Neill, Frost, Hemingway, and Faulkner, with particular attention to works most likely to be taught in high schools.

80-503—*History of the English Language* Three Credit Hours

Introduction to phonetics and phonetic transcription. The historical backgrounds of the principal features of present-day English pronunciation, spelling, grammar, and vocabulary. Current controversies over usage, and the role of dictionaries. Some consideration of structural linguistics. This course will include a term paper and as extensive reading as time allows.

80-505—*Shakespeare* Three Credit Hours

A concentrated review of the cultural, social, political, and dramatic influences upon Shakespeare's work followed by detailed study of a limited selection of representative comedies and history plays. Assignments include parallel study of additional plays, oral reports, and a term paper.

80-506—*Shakespeare* Three Credit Hours

A continuation of 80-505 with concentration upon the major tragedies: *Hamlet, Othello, Macbeth, King Lear,* and *Antony and Cleopatra.* Assignments include parallel study of additional tragedies, oral reports, and a term paper.

80-507—*Twentieth Century Literature* Three Credit Hours
Written in English: Novel and Short Story

Extensive reading, especially in the novel, to fill the need of teachers in this area. The emphasis will fall upon the American novel from 1900 to 1950.

80-508—*Twentieth Century Literature* Three Credit Hours
Written in English: Drama and Poetry

Extensive reading, especially in poetry, to fill the need of teachers in this area. In both drama and poetry, the distribution will be balanced between American and British material.

80-509—*Southern Literature* Three Credit Hours

A survey of the intellectual thought and literary achievement of Southern writers from William Byrd to the present, with special emphasis placed upon Edgar Allan Poe, William Gilmore Simms, Henry Timrod, Paul Hamilton Hayne, and Sidney Lanier. Two papers on the literature studied.

80-511—*Applied Literary Criticism* Three Credit Hours

A careful balancing of the theory and practice with emphasis upon application. Critical analyses in class and written analyses prepared outside of class of prose fiction, poetry, and drama.

80-513—*Comparative Literature* Three Credit Hours

Consideration of some of the masterpieces of literature other than English and American, in translation. Studied and discussed are such writers and works as Homer or Virgil, the Greek dramatists. *The Song of Roland, Tristan and Iseult,* Dante, Boccaccio, *The Autobiography of Benvenuto Cellini,* Montaigne, and Cervantes.

80-514—*Comparative Literature* Three Credit Hours

A continuation of 80-513. Consideration of some of the masterpieces of literature other than English and American, in translation. Studied and discussed are such writers as Moliere, Voltaire, Goethe, Heine, Tolstoy, Flaubert, Maupassant, Chekhov, Ibsen, Joyce, Mann, and Rostand.

Undergraduate courses: The following undergraduate courses are approved for credit toward the MAT degree:

80-310—*Chaucer* Three Credit Hours

An introduction to Chaucer's language, narrative skill, and mastery of poetic forms through reading in the original "The General Pro-

logue," selected tales from *The Canterbury Tales, Troilus and Criseyde,* and some of the shorter poems.

80-319—*Milton* Three Credit Hours

A study of *Paradise Lost* entire, of *Samson Agonistes,* and of representative prose works, with special attention to the philosophical content.

80-323—*Neoclassicism, 1660-1744* Three Credit Hours

Dryden, Addison, Swift, and Pope, with some attention to the lesser writers of the period.

80-326—*Victorian Poetry and Prose* Three Credit Hours

A study of the period from 1830 to 1900, showing the effects of the industrial and Scientific Revolutions on traditional attitudes toward art and life through the works of the major writers of the period, with emphasis upon the poetry of Tennyson, Browning, and Swinburne and upon the prose of Carlyle, Arnold, Huxley, and Pater.

80-329—*The Development of the English Novel to 1900* Three Credit Hours

Lectures on narrative forms which preceded the novel and on lives and works of major eighteenth and nineteenth century novelists; reading and discussion of selected novels.

80-414—*Modern English Grammar* Three Credit Hours

An analysis of the structure of Modern English, its phonology, morphology, and syntax, with explorations into the conceptual basis of language and the way in which grammar generates meaning.

80-425—*Adolescent Literature* Three Credit Hours

A study of literature for the adolescent, including methods of introducing the major literary genres to the secondary school student.

DEPARTMENT OF HISTORY

The MAT degree with a major in history requires not less than 18 or more than 21 semester hours credit, with at least 12 of them on the graduate level. A major in history must elect a minor in secondary education.

A minor in history requires 9 to 12 semester hours in history with not less than 6 of these on the graduate level.

Graduate courses:

70-500—*Historiography* Three Credit Hours

A study of the great historians and major trends in the philosophy and interpretation of history.

70-501—*American Foreign Policy Since World War II* Three Credit Hours

Diplomatic problems arising from the war, increased responsibilities in American foreign policy, the United Nations, American-Soviet rivalry, the Cold War, world area treaties and commitments, military and nonmilitary efforts in international relations.

70-502—*American Colonies in the Seventeenth Century* Three Credit Hours

A detailed study of the founding and development of the English American colonies from the beginning to 1589, with emphasis on the mainland colonies that became part of the United States. Attention is also given to contemporary conditions in England and elsewhere that were related to the colonies.

70-503—*American Colonies in the Eighteenth Century* Three Credit Hours

A continuation of 70-502 covering the period from the Glorious Revolution of 1689 to the end of the French and Indian War in 1763. In addition to expansion and growth, special attention is given to the political, economic, and social development of the colonies, as well as to international relations that culminated in England's domination of the North American continent.

70-504—*Federalist and Jeffersonian America, 1789-1820* Three Credit Hours

Founding of the Republic, development of political philosophies and parties, foreign involvements, establishment of a national economy and culture.

70-505—*The Age of The American Revolution, 1763-1789* Three Credit Hours

A study of the causes of the American Revolution and of the various aspects of the conflict. It also covers the period of the Confederation government and the adoption of the Federal Constitution.

70-506—*The Middle Period of American History, 1820-1860* Three Credit Hours

Rise of the common man and its political, social, and economic effects; ascendency of the West, development of sectionalism, expansion and diplomatic repercussions.

70-507—*Tudor and Stuart England* Three Credit Hours

Developments, especially religious and constitutional, of the period 1485-1714 are analyzed. Attention is given the connection between later English and American history and such events as the break with Rome, the Puritan challenge, and the struggle of the crown with parliament.

70-508—*Hanoverian England* Three Credit Hours

The continuing definition of major British political institutions during the century 1714-1815 is traced and discussed. Against this background are studied the wars of empire, as well as the Agricultural, Industrial, American, and French Revolutions.

70-509—*Europe Since 1939* Three Credit Hours

The diplomacy of World War II, 1939-45; the Cold War, internal political development in the major European countries; the problems of colonialism.

70-510—*England in the Twentieth Century* Three Credit Hours

The efforts of the English to solve their political, economic, imperial, social, and diplomatic problems since 1900.

70-511—*Colonial South Carolina* Three Credit Hours

The history of South Carolina until it became a member of the Federal Union.

70-512—*South Carolina, 1789-1865* Three Credit Hours

A study of the factors which fashioned South Carolina politics, economy, and society in the antebellum period: the role of South Carolina in the Nation and in the Confederacy.

70-513—*Teaching of Social Studies in Secondary Schools* Three Credit Hours

Organization, methods, and procedures for teaching social studies, including history, in the secondary schools.

70-514—*The Recent South* Three Credit Hours

A study of the evolution of the modern South. Beginning with a survey of those aspects of the social, economic, and political life of the South which tended, in the last third of the nineteenth century, to make the South a distinctive region somewhat apart from the rest of the nation, the course moves on to a more intensive investigation of the changes which have increasingly tended, as the twentieth century advances, to move the South into the mainstream of American civilization. (Credit cannot be received for this course and 70-312 (The New South).)

70-515—*A History of Soviet Russia* Three Credit Hours

A history of the Soviet Union since 1917: causes of the 1917 Revolution; consolidation of Soviet rule; political, economic, and social development of the Soviet system with its effect upon domestic and foreign policies; Russian ascendency in world affairs.

Undergraduate courses: The following undergraduate courses are approved for credit toward the MAT degree:

60-407—*Political Theory, Plato Through Machiavelli* Three Credit Hours

Major theoretical writing; emphasis on a comparison of basic ideas and on the relationship between theories and contemporary problems.

70-303 and 70-304—*The United States Since 1900* Three Credit Hours Each Semester

American social, cultural, economic, and political development in the twentieth century; emphasis on the increasing importance of the United States in the world affairs and significant political and economic changes.

70-305—*Europe in the Twentieth Century* Three Credit Hours

A study of the origins and impact of World War I on the major European states; their political, social, and economical development during the twenties and thirties.

70-307—*History of Europe, 1815-1900* Three Credit Hours

A survey of the conflict in Europe of reaction and reform; the Industrial Revolution with its economic, social, and political effects; the

efforts toward nationalism; renewed interest in imperialism and other factors in international rivalries.

70-308—*Renaissance and Reformation* Three Credit Hours
The Renaissance as a European-wide movement emanating from the Italian peninsula; the religious, political, and social upheavals of the period 1500-1648.

70-309—*Disunion and Civil War* Three Credit Hours
A study of American history, 1850-1865; political, economic, and diplomatic development of the period with some attention to the military aspects of the war.

70-310—*The Era of the French Revolution and Napoleon* Three Credit Hours
A survey of the Old Regime and the causes of the Revolution, followed by an examination of the principal events of the period, stressing the innovations of the Revolutionary governments, the causes of Napoleon's rise to power, his achievements in France and in Europe, the reasons for his eventual downfall.

70-311—*The Old South* Three Credit Hours
The political, social, and economic characteristics of the South before 1860 with emphasis on the role of this area in the national scene.

70-312—*The New South* Three Credit Hours
The political, economic, and social development of the South since 1877; emphasis on contemporary regional problems and their impact on American life.

70-313 and 70-314—*Social and Intellectual History of the United States* Three Credit Hours Each Semester
The origin and development of, as well as the interaction between, the customs and arts; the religious, political, and economic ideas that have shaped the American mind and character.

70-315 and 70-316—*History of Modern Warfare* Three Credit Hours
A survey of the development of modern warfare, emphasizing the impact of social, economic, political, and technological forces upon military theory and practice.

70-317—*Economic History of the United States* Three Credit Hours
A survey of American development from the colonial period to the present with respect to agriculture, business, industry, labor, and related governmental policies.

70-318—*Economic History of Modern Europe* Three Credit Hours

A survey of the development of the European economy from the origins of the first Industrial Revolution to the Common Market; particular emphasis upon those areas where increasing industrialization forced governmental action, changed social structure, and created new systems of thought.

70-319—*The Jeffersonian and Nationalistic Period* Three Credit Hours

A study of American history, 1800-1850; establishment of Jeffersonian principles; Second War for American Independence; growth of nationalism; rise of the common man and its influence politically, socially, and economically; the development of sectionalism.

70-320—*America Comes of Age, 1865-1900* Three Credit Hours

Reconstruction, the last frontier, the advent of big business with its effects, the origins of American imperialism.

70-321—*Absolutism and the Age of Reason* Three Credit Hours

Europe, 1648-1789; the ascendancy of France, emergence of Prussia and Russia, colonial rivalries, dynastic struggles, enlightenment and rationalism.

70-401—*History of American Diplomacy* Three Credit Hours

The heritage, fundamental principles, and progressive development of American foreign policy from colonial times to the present with emphasis on the effects of domestic politics; the role of the United States as leader of the Western World.

70-403 and 70-404—*Latin American History* Three Credit Hours Each Semester

Survey of the economic, cultural, and political development of Latin America; study of the nations as a unit, with special attention to the individuality of each; concentration by each student in his collateral reading on some one country.

70-407—*History of the Ancient World* Three Credit Hours

A survey of the earliest civilizations of man with emphasis on the history of Ancient Greece and Rome.

70-408—*The Middle Ages* Three Credit Hours

A survey of Europe from the demise of Rome to the coming of nationalism and the Renaissance.

70-409—*History of the Far East in Modern Times* Three Credit Hours
A survey of the Far East from the first contacts with the West to the present.

70-410—*History of Modern Russia* Three Credit Hours
History of the development of tsarst absolutism under the Romanov dynasty and the religious, social, and economic institutions of the tsarist state. Intensive treatment of the 1917 Revolution and the institutional development of the Soviet state to world power status. Extensive reading in the historical, literary, and periodical works of Russian and Soviet culture.

71-312—*Historical Geography* Three Credit Hours
A survey of geographic influences in prehistory and history. Various theories of geographical determinism are evaluated against the backdrop of historical realities.

DEPARTMENT OF MATHEMATICS

The MAT degree with a major in mathematics requires not less than 18 or more than 21 semester hours credit, including 30-501, 30-502, 30-512, 30-521, and 30-522. A major in mathematics must elect a minor in secondary education.

A minor in mathematics requires 9 to 12 semester hours in mathematics including 30-501 and 30-502.

Graduate courses:

30-501 and 30-502—*Mathematics for Secondary Teachers* — Three Credit Hours Each Semester

The fundamental principles and processes of mathematics, including the theory of sets, properties of number systems, relations and functions, matrix theory, limits, applications of the calculus, modern algebra, theory of numbers, history and philosophy of mathematics, and an introduction to computer language.

Prerequisite: Permission of the instructor.

30-503 and 30-504—*Mathematics for Elementary Teachers* — Three Credit Hours Each Semester

An introduction to the basic concepts of elementary mathematics with emphasis on the language of sets and operations with sets; the structures of systems of numeration, the properties of number systems, number bases, operations with whole numbers, fractions, and decimals; the study of mathematical systems, and elementary number theory; introduction to elementary geometry from an informal and intuitive point of view with emphasis on points and lines, measurement of length and angles, simple closed curves, mathematical constructions, areas; introduction to algebra.

30-511—*Geometry from an Advanced Standpoint* — Three Credit Hours

A re-examination of elementary geometry from an advanced standpoint. Metric and synthetic approaches to plane and solid geometry; affine geometry and an algebraic model of Euclidean geometry.

Prerequisite: Permission of the instructor.

30-512—*Modern Algebra* — Three Credit Hours

Structure of the number system, integral domains, fields, groups, vector spaces, matrices, determinants.

Prerequisite: Calculus.

30-521 and 30-522—*Analysis* Three Credit Hours Each Semester

Elements of the theory of real functions, including set theory, the real number system, functions, sequences, series, limits, continuity, differentiation, integration, and sequences of functions. Undergraduate course material examined from an advanced standpoint with valid definitions and a clear understanding of theorems and concepts furnished.

Prerequisite: 30-501 and 30-502 (Mathematics for Secondary Teachers) or permission of the instructor.

Undergraduate courses: The following undergraduate courses are approved for credit toward the MAT degree:

30-318—*Numerical Analysis* Three Credit Hours

Approximation theory; roots of algebraic and transcendental equations; iterative methods; numerical differentiation and integration; numerical solution of differential equations; mathematical methods for the computer.

Prerequisite: 36-301 (Applied Numerical Methods).

30-321 and 30-322—*Advanced Calculus* Three Credit Hours Each Semester

Vector Calculus; Bessel's functions; partial differential equations; Fourier series, Leplace transforms; functions of a complex variable.

Prerequisite: Calculus.

30-401—*Real Analysis* Three Credit Hours

Dedekind cuts, completeness, perfect sets, Cantor set, Heine-Borel Theorem, sequences, series, continuity, differentiation.

Prerequisite: 30-512 (Modern Algebra).

30-411—*Number Theory* Three Credit Hours

The Euclidean algorithm; prime and composite integers; elementary Diophantine equations; Pythagorean triples; Euler's phi-function; congruences; Euler-Fermat theorems; exponents and primitive roots; quadratic residues.

Prerequisite: Calculus or permission of the instructor.

30-412—*History of Mathematics* Three Credit Hours

A survey of the development of mathematics from the time of the ancients to the present; analysis of causes for the retardation of the advancement of mathematics in different centuries; selected readings from significant areas of mathematics used to show the

contributions of mathematics to the development of science.
Prerequisite: Calculus or permission of the instructor.

30-414—*Topology* Three Credit Hours
Set axioms, functions, relations, well ordering, topological spaces, continuity, separation, metric spaces, compactness, connectedness.
Prerequisite: 30-401 (Real Analysis).

30-422—*Complex Analysis* Three Credit Hours
A course which features a variety of topics in advanced analysis; selected topics from complex function theory; complex functions, sequences, and limits; complex differentiation and integration; Cauchy theorem; complex series and uniform convergence; harmonic functions.
Prerequisite: Approval of department head.

Computer Science courses:

36-301—*Applied Numerical Methods* Three Credit Hours
Analysis of computational problems and the development of computer techniques for their solution; introduction to numerical methods; error analysis; linear systems of equations; zeros of functions; quadrature; numerical solution of differential equations.
Prerequisites: 36-201 (Computer Programming), or 36-203 (Computer Programming) and 30-232 (Differential Equations), or approval of department head.

36-305—*Computer Principles* Three Credit Hours
Introduction to programming languages, flow charting, package utilization; examples and problems in information retrieval, accounting; statistics.
Prerequisite: Approval of department head.

36-306—*Management Information Systems* Three Credit Hours
Design of large-scale, computer-oriented information systems. Data collection, file organization, directory construction, and search techniques. On-line information retrieval, retrieval, retrieval models and processes.
Prerequisite: 36-304 (Computer Principles).

36-311 and 36-312—*Methods of Operations Research* Three Credit Hours Each Semester
Applications and elementary theory of selected topics from operations research; linear algebra, linear and nonlinear programming, transportation and assignment problems, net-work analysis, game theory,

dynamic programming, queing theory, markov processes; application to managerial problems, economic behavior, military strategy.

Prerequisite: 36-201 (Computer Programming), or 36-305 (Computer Principles), or approval of department head.

DEPARTMENT OF PHYSICAL EDUCATION

The MAT degree with a major in physical education has as its prerequisite an undergraduate major in physical education or a valid South Carolina teaching certificate in physical education. The program requires not less than 18 nor more than 21 semester hours credit, including 59-500 or 59-504, 59-501, 59-505, and 59-506. A major in physical education must elect a minor in secondary education.

A minor in physical education requires 12 semester hours consisting of 59-500 or 59-504, 59-501, 59-505, and 59-506.

Graduate courses:

59-500—*History and Philosophy of Physical Education* — Three Credit Hours

A course designed to acquaint the student with the history of physical education and the philosophical thought of the important periods which have influenced modern physical education.

59-501—*Curriculum and Supervision in Physical Education* — Three Credit Hours

A study of the principles and problems of curriculum development and supervision in physical education.

59-502—*Research in Physical Education* — Three Credit Hours

A course designed to acquaint the student with procedures for conducting, evaluating, and applying research in physical education.

59-503—*Advanced Measurements and Evaluation in Physical Education* — Three Credit Hours

A study of the equipment and methodology used to measure and evaluate various parameters which are considered in the physical education program.

59-504—*Psychosocial Aspects of Physical Activity* — Three Credit Hours

An exploration of the entire area of sports psychology, including basic performance factors, perception, maturation and development, learning theory, and the behavior of individuals and groups.

Prerequisite: 59-408 (Introduction to Sports Psychology) or three credit hours of psychology.

59-505—*Perceptual Motor Learning and Development* — Three Credit Hours

An in-depth study of appropriate learning theories and of interacting hereditary and environmental factors which influence the learning

and performance of gross motor skills.
Prerequisite: Three credit hours of psychology.

59-506—*Physiological Aspects of Physical Activity* Three Credit Hours
A practical study of the effects of exercise upon the components of physical fitness, including, but not limited to, strength, muscular endurance, and cardiovascular-respiratory endurance. The analysis and interpretation of research in the areas of cardiovascular-pulmonary adjustment, metabolic requirement, and heat regulation during exercise will be emphasized.

59-507—*Special Problems in Physical Education* Three Credit Hours
An independent study of a local problem or a specialized subject area which is not covered in existing courses.

Undergraduate courses: The following undergraduate courses are approved for credit toward the MAT degree:

59-431—*Administration of Interschool Athletics* Three Credit Hours
A study of the policies and procedures of organizing and administering interschool athletics.

59-432—*Methods of Athletic Coaching* Three Credit Hours
A practical application of research in the areas of learning condition, practice and training schedules, selection, analysis, and placement of skills, evaluation and selection of personnel, and coach-player interaction.

59-433—*Elementary School Physical Education* Three Credit Hours
A study of the progressively graded program of activities for the elementary school, grades 1-6. Theoretical as well as practical material will be developed for each grade.

CALENDAR FOR EVENING CLASSES
FALL 1974

Monday Evening Classes

August	26
September	9, 16, 23, 30
October	7, 14, 21, 28
November	4, 11, 18, 25
December	2, 9 Examination

Tuesday Evening Classes

August	27
September	3, 10, 17, 24
October	1, 8, 15, 22, 29
November	5, 12, 19
December	3, 10 Examination

Wednesday Evening Classes

August	28
September	4, 11, 18, 25
October	2, 9, 16, 23, 30
November	6, 13, 20
December	4, 11 Examination

Thursday Evening Classes

August	29
September	5, 12, 19, 26
October	3, 10, 17, 24, 31
November	7, 14, 21
December	5, 12 Examination

CALENDAR FOR EVENING CLASSES

SPRING 1975

Monday Evening Classes

January	20, 27
February	3, 10, 17, 24
March	3, 10, 17, 31
April	7, 14, 21, 28
May	5 Examination

Tuesday Evening Classes

January	21, 28
February	4, 11, 18, 25
March	4, 11, 18
April	1, 8, 15, 22, 29
May	6 Examination

Wednesday Evening Classes

January	22, 29
February	5, 12, 19, 26
March	5, 12, 19
April	2, 9, 16, 23, 30
May	7 Examination

Thursday Evening Classes

January	23, 30
February	6, 13, 20, 27
March	6, 13, 20
April	3, 10, 17, 24
May	1, 8 Examination

THE GRADUATE COUNCIL

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Director of MAT Program
Chairman, The Graduate Council

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Department of History

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Professor, Head Librarian

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Registrar

master of arts in teaching 1974-1975

THE CITADEL

Charleston, South Carolina